

WHAT IS CLAIMED IS:

1. An antimicrobial medical article prepared by a method comprising treating a surface of a polymeric medical article, for an effective period of time, with a solution consisting essentially of one or more solvents and a mixture of chlorhexidine free base and a water-soluble chlorhexidine salt, wherein the weight/weight ratio of chlorhexidine free base and the water-soluble chlorhexidine salt in the solution is between 1:1 and 1:5, and wherein the combined concentration of chlorhexidine free base and a water-soluble salt of chlorhexidine is about 2.00 percent (w/v) or greater.
2. The antimicrobial medical article of Claim 1, wherein the concentrations of chlorhexidine free base and a water-soluble salt of chlorhexidine are each about 1.00 percent (w/v).
3. The antimicrobial medical article of Claim 1, wherein the concentrations of chlorhexidine free base and a water-soluble salt of chlorhexidine are each about 1.20 percent (w/v).
4. The antimicrobial medical article of Claim 1, wherein the concentrations of chlorhexidine free base and a water-soluble salt of chlorhexidine are about 0.625 percent (w/v) and about 1.375 percent (w/v), respectively.
5. The antimicrobial medical article of Claim 1, wherein the concentrations of chlorhexidine free base and a water-soluble salt of chlorhexidine are each about 2.00 percent (w/v).
6. The antimicrobial medical article of Claim 1, wherein the one or more solvents comprise methanol.
7. The antimicrobial medical article of Claim 6, wherein the solvent is a mixture of between 75 and 95 percent (volume/volume) tetrahydrofuran and 5 and 25 percent (volume/volume) methanol.
8. The antimicrobial medical article of Claim 1, wherein the one or more solvents comprise ethanol.
9. The antimicrobial medical article of Claim 8, wherein the solvent is a mixture of between 10 and 30 percent (volume/volume) tetrahydrofuran and 70 and 90 percent (volume/volume) ethanol.
10. The antimicrobial medical article of Claim 1, wherein the water-soluble chlorhexidine salt is chlorhexidine diacetate.

11. An antimicrobial medical article prepared by a method comprising treating a surface of a polymeric medical article, for an effective period of time, with a solution consisting essentially of one or more solvents and a mixture of chlorhexidine free base and a water-soluble chlorhexidine salt, wherein the concentrations of chlorhexidine free base and a water-soluble salt of chlorhexidine are each about 0.20 percent (w/v).

12. The antimicrobial medical article of Claim 11, wherein the one or more solvents comprise methanol.

13. The antimicrobial medical article of Claim 12, wherein the solvent is a mixture of between 75 and 95 percent (volume/volume) tetrahydrofuran and 5 and 25 percent (volume/volume) methanol.

14. The antimicrobial medical article of Claim 11, wherein the one or more solvents comprise ethanol.

15. The antimicrobial medical article of Claim 14, wherein the solvent is a mixture of between 10 and 30 percent (volume/volume) tetrahydrofuran and 70 and 90 percent (volume/volume) ethanol.

16. The antimicrobial medical article of Claim 11, wherein the water-soluble chlorhexidine salt is chlorhexidine diacetate.

17. An antimicrobial medical article prepared by a method comprising treating a surface of a polymeric medical article, for an effective period of time, with a solution consisting essentially of a mixture of chlorhexidine free base and a water-soluble chlorhexidine salt, wherein the weight/weight ratio of chlorhexidine free base and the water-soluble chlorhexidine salt in the solution is between 1:1 and 1:5, and comprising a solvent comprising methanol.

18. The antimicrobial medical article of Claim 17, wherein the water-soluble chlorhexidine salt is chlorhexidine diacetate.

19. An antimicrobial medical article prepared by a method comprising treating a surface of a polymeric medical article, for an effective period of time, with a solution comprising one or more solvents, a silver compound, and a mixture of chlorhexidine free base and a water-soluble chlorhexidine salt, wherein the weight/weight ratio of chlorhexidine free base and the water-soluble chlorhexidine salt in the solution is between 1:1 and 1:5.

20. The antimicrobial medical article of Claim 19, wherein the one or more solvents comprise methanol.

21. The antimicrobial medical article of Claim 20, wherein the solvent is a mixture of between 75 and 95 percent (volume/volume) tetrahydrofuran and 5 and 25 percent (volume/volume) methanol.

22. The antimicrobial medical article of Claim 19, wherein the one or more solvents comprise ethanol.

23. The antimicrobial medical article of Claim 22, wherein the solvent is a mixture of between 10 and 30 percent (volume/volume) tetrahydrofuran and 70 and 90 percent (volume/volume) ethanol.

24. The antimicrobial medical article of Claim 19, wherein the water-soluble chlorhexidine salt is chlorhexidine diacetate.

25. The antimicrobial medical article of Claim 19, wherein the silver compound is selected from the group consisting of silver carbonate and silver sulfadiazine.

26. An antimicrobial medical article prepared by a method comprising treating a surface of a polymeric medical article, for an effective period of time, with a solution consisting essentially of one or more solvents and a mixture of chlorhexidine free base and a water-soluble chlorhexidine salt, wherein the weight/weight ratio of chlorhexidine free base and the water-soluble chlorhexidine salt in the solution is greater than 1:1.

27. The antimicrobial medical article of Claim 26, wherein the one or more solvents comprise methanol.

28. The antimicrobial medical article of Claim 27, wherein the solvent is a mixture of between 75 and 95 percent (volume/volume) tetrahydrofuran and 5 and 25 percent (volume/volume) methanol.

29. The antimicrobial medical article of Claim 26, wherein the one or more solvents comprise ethanol.

30. The antimicrobial medical article of Claim 29, wherein the solvent is a mixture of between 10 and 30 percent (volume/volume) tetrahydrofuran and 70 and 90 percent (volume/volume) ethanol.

31. The antimicrobial medical article of Claim 26, wherein the water-soluble chlorhexidine salt is chlorhexidine diacetate.

32. The antimicrobial medical article of any one of Claims 1, 11, 17, 19 or 26, wherein the article is a hydrophilic polymeric medical article.

33. The antimicrobial medical article of Claim 32, wherein the article is a catheter.

34. The catheter of Claim 33, wherein the catheter has a lumen which is treated, for an effective period of time, with the solution consisting essentially of one or more solvents and the mixture of chlorhexidine free base and water-soluble chlorhexidine salt.

35. The medical article of Claim 32, wherein the water-soluble chlorhexidine salt is chlorhexidine diacetate.

36. The catheter of Claim 33, wherein the water-soluble chlorhexidine salt is chlorhexidine diacetate.

37. The catheter of Claim 34, wherein the water-soluble chlorhexidine salt is chlorhexidine diacetate.

38. An antimicrobial medical article prepared by a method comprising treating a surface of a polymeric medical article, for an effective period of time, with a solution consisting essentially of one or more solvents and a mixture of chlorhexidine free base and a water-soluble chlorhexidine salt, wherein the weight/weight ratio of chlorhexidine free base and the water-soluble chlorhexidine salt in the solution is between 1:1 and 1:5, wherein the article is a hydrophobic polymeric medical article, optionally comprising expanded polytetrafluoroethylene.

39. An antimicrobial medical article prepared by a method comprising treating a surface of a polymeric medical article, for an effective period of time, with a solution consisting essentially of

(1) one or more solvents;

(2) a mixture of chlorhexidine free base and a water-soluble chlorhexidine salt; and

(3) one or more of (i) an organic acid, at a concentration of between 0.1 and 5 percent; (ii) an anti-inflammatory agent, at a concentration of between 0.1 and 5 percent; or (iii) a hydrogel at a concentration of between 0.5 to 10 percent,

wherein the weight/weight ratio of chlorhexidine free base and the water-soluble chlorhexidine salt in the solution is between 1:1 to 1:5.

40. The antimicrobial medical article of Claim 39, wherein the concentration of organic acid in the solution is between 0.1 and 2 percent.

41. The antimicrobial medical article of Claim 39, wherein the concentration of anti-inflammatory agent is between 0.1 and 1 percent.

42. The antimicrobial medical article of Claim 39, wherein the concentration of hydrogel in the solution is between 1 and 5 percent.

43. The antimicrobial medical article of Claim 39, wherein the combined concentration of the mixture of chlorhexidine free base and a water-soluble salt of chlorhexidine is about 2.00 percent (w/v) or greater.

44. The antimicrobial medical article of Claim 43, wherein the concentration of organic acid in the solution is between 0.1 and 2 percent.

45. The antimicrobial medical article of Claim 43, wherein the concentration of anti-inflammatory agent is between 0.1 and 1 percent.

46. The antimicrobial medical article of Claim 43, wherein the concentration of hydrogel in the solution is between 1 and 5 percent.

47. The antimicrobial medical article of Claim 43, and wherein the concentrations of chlorhexidine free base and a water-soluble salt of chlorhexidine are each about 0.20 percent (w/v).

48. The antimicrobial medical article of Claim 47, wherein the concentration of organic acid in the solution is between 0.1 and 2 percent.

49. The antimicrobial medical article of Claim 47, wherein the concentration of anti-inflammatory agent is between 0.1 and 1 percent.

50. The antimicrobial medical article of Claim 47, wherein the concentration of hydrogel in the solution is between 1 and 5 percent.

51. A method of preparing a medical article comprising the steps of

(i) placing the medical article in a solution consisting essentially of

(a) a solvent comprising methanol; and

(b) a mixture of chlorhexidine free base and a water-soluble chlorhexidine salt, wherein the weight/weight ratio of chlorhexidine free base and water-soluble chlorhexidine salt in the solution is between 1:1 to 1:5;

- (ii) soaking the medical article in the solution for an effective period of time to allow the medical article to swell;
- (iii) removing the medical article from the solution; and
- (iv) drying the medical article.

52. The method of Claim 51, wherein the combined concentration of the mixture of chlorhexidine free base and a water-soluble salt of chlorhexidine is about 2.00 percent (w/v) or greater.

53. The method of Claim 51, wherein the concentrations of chlorhexidine free base and a water-soluble salt of chlorhexidine are each about 0.20 percent (w/v).

54. The method of Claim 52, wherein the concentrations of chlorhexidine free base and a water-soluble salt of chlorhexidine are each about 1.00 percent (w/v).

55. The method of Claim 52, wherein the concentrations of chlorhexidine free base and a water-soluble salt of chlorhexidine are each about 1.20 percent (w/v).

56. The method of Claim 52, wherein the concentrations of chlorhexidine free base and a water-soluble salt of chlorhexidine are about 0.625 percent (w/v) and about 1.375 percent (w/v), respectively.

57. The method of Claim 52, wherein the concentrations of chlorhexidine free base and a water-soluble salt of chlorhexidine are each about 2.00 percent (w/v).

58. A method of preparing a catheter having a lumen comprising the steps of

- (i) exposing the lumen of the catheter to a solution consisting essentially of
 - (a) a solvent comprising methanol; and
 - (b) a mixture of chlorhexidine free base and a water-soluble chlorhexidine salt, wherein the weight/weight ratio of chlorhexidine free base and water-soluble chlorhexidine salt in the solution is between 1:1 to 1:5;
- (ii) filling the lumen of the catheter with the solution for an effective period of time to allow the lumen of the catheter to swell;
- (iii) removing the solution from the lumen of the catheter; and
- (iv) drying the catheter.

59. The method of Claim 58, wherein the combined concentration of the mixture of chlorhexidine free base and a water-soluble salt of chlorhexidine is about 2.00 percent (w/v) or greater.

59. The method of Claim 58, wherein the concentrations of chlorhexidine free base and a water-soluble salt of chlorhexidine are each about 0.20 percent (w/v).

60. The method of Claim 59, wherein the concentrations of chlorhexidine free base and a water-soluble salt of chlorhexidine are each about 1.00 percent (w/v).

61. The method of Claim 59, wherein the concentrations of chlorhexidine free base and a water-soluble salt of chlorhexidine are each about 1.20 percent (w/v).

62. The method of Claim 59, wherein the concentrations of chlorhexidine free base and a water-soluble salt of chlorhexidine are about 0.625 percent (w/v) and about 1.375 percent (w/v), respectively.

63. The method of Claim 59, wherein the concentrations of chlorhexidine free base and a water-soluble salt of chlorhexidine are each about 2.00 percent (w/v).